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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously Presented) A polymeric transition metal catalyst comprising: a polymeric compound having a degree of polymerization numerical average value from 6 to 2000 and containing at least one transition metal catalyst comprising:

at least one structural unit of the formula (la):

$$X^{1}$$
 X^{2}
 M
 $R^{2,3,4}$

where;

M is a transition metal of the 8th transition group of the Periodic Table;

X¹ and X² are the same or different and are each chlorine, bromine or iodine;

L is an N-heterocyclic carbene ligand of the formula (II):

$$R^{6}$$
 N R^{7} (II)

where the direction of the arrow is intended to represent the bond to M and where;

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B is a 1,2-ethanediyl or 1,2-ethenediyl radical which is optionally mono- or disubstituted by C₁-C₄-alkyl, C₆-C₁₅-arylalkyl or C₅-C₁₄-aryl; and

 R^6 and R^7 are each independently C_1 - C_{20} -alkyl or C_5 - C_{24} -aryl;

- R¹ Is cyclic, straight-chain or branched C₁-C₂₀-alkyl or C₅-C₂₄-aryl; and
- R², R³ and R⁴ are each independently hydrogen, C₁-C₂₀-alkyl, C₅-C₂₄-aryl, halogen, C₁-C₄-fluoroalkyl, C₁-C₄-alkoxy, C₅-C₁₄-aryloxy, (C₁-C₈-alkyl)OCO-, (C₁-C₈-alkyl)CO₂-, (C₅-C₁₄-aryl)OCO- or (C₅-C₁₄-aryl)CO₂-; and/or
- in each case two radicals in an ortho-arrangement to one another from the group of R2, R3 and R4 are part of a cyclic system which consists of a carbon framework having 5 to 22 carbon atoms, one or more carbon atoms of the cyclic system optionally being replaced by heteroatoms from the group of sulphur, oxygen or nitrogen, and the cyclic system also being optionally mono- or polysubstituted by radicals selected from the group of halogen, C₁-C₄-fluoroalkyl, (C₁-C₄-alkyl)OCO-, (C₁-C₈-alkyl)CO₂-, (C₆-C₁₀-aryl)OCO- or (C₅-C₁₄-aryl)CO₂-; and
- A is oxygen, sulphur, sulphoxyl, sulphonyl or CR8R9 where R8 and R9 are each independently hydrogen or C₁-C₄-alkyl; and

is C_1 - C_8 -alkylene, $[(C_1$ - C_8 -alkylene)-O- $]_n$ where n=1 to 12, $(C_1$ - C_8 -alkylene) CO_2 -, $(C_1$ - C_8 -alkylene)-OCO- $(C_1$ - C_8 -alkylene), $(C_1$ - C_8 -alkylene) CO_2 - $(C_1$ - C_8 -alkylene), $(C_1$ - C_8 -alkylene) $CONR^{10}$ -, $(C_1$ - C_8 -alkylene) $CONR^{10}$ - $(C_1$ - C_8 -alkylene) $CONR^{10}$ - $(C_1$ - C_8 -alkylene) or $(C_1$ - C_8 -alkylene)CO- $(C_1$ - C_8 -alkylene) where R^{10} is hydrogen or C_1 - C_4 -alkyl; and

at least one structural unit of the formula (lb):

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$$\mathbb{R}^{1}$$
 $\mathbb{R}^{2,3,4}$ (lb)

where A, D, R¹, R², R³ and R⁴ each independently have the same definitions and fulfil the same conditions as specified under the formula (Ia); and, optionally,

at least one structural units of the formula (Ic):

where:

A has the same definition and fulfils the same conditions as specified under the formula (la) in Claim 1; and

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- $\begin{array}{lll} & \text{is } C_1\text{-}C_8\text{-}\text{alkyl}, \, [(C_1\text{-}C_8\text{-}\text{alkylene})\text{-}O\text{-}]_n\text{-}(C_1\text{-}C_8\text{-}\text{alkyl}) \, \text{ where } n=1 \,\, \text{to} \\ & 12, \quad (C_1\text{-}C_8\text{-}\text{alkylene})\text{CO}_2\text{-}(C_1\text{-}C_8\text{-}\text{alkyl}), \quad (C_1\text{-}C_8\text{-}\text{alkylene})\text{-}O\text{CO}\text{-}(C_5\text{-}C_{14}\text{-}\text{aryl}), \quad (C_1\text{-}C_8\text{-}\text{alkylene})\text{-}O\text{CO}\text{-}(C_5\text{-}C_{14}\text{-}\text{aryl}), \quad (C_1\text{-}C_8\text{-}\text{alkylene})\text{CONR}^{10}\text{-}(C_1\text{-}C_8\text{-}\text{alkylene})\text{CONR}^{10}\text{-}(C_1\text{-}C_8\text{-}\text{alkylene})\text{-}CONR}^{10}\text{-}(C_5\text{-}C_14\text{-}\text{aryl}) \,\, \text{or} \,\, (C_1\text{-}C_8\text{-}\text{alkylene})\text{NR}^{10}\text{CO}\text{-}(C_5\text{-}C_{14}\text{-}\text{aryl}) \,\, \text{where } \,\, \text{R}^{10} \,\, \text{is hydrogen or } \,\, \text{C}_1\text{-}C_4\text{-}\text{alkylene}). \end{array}$
- 2. (Cancelled)
- (Previously Presented) The polymeric compound according to one or more of Claims 1 further comprising at least one structural unit derived from olefins suitable for ring-opening metathesis polymerization.
- 4. (Cancelled)
- 5. (Previously Presented) The polymeric compound according to Claim 1, wherein A, D, M, L, X1 and X2 and R1, R2, R3, R4 and R11 radicals present in the structural units of the formulae (Ia), (Ib) and (Ic) are identical.
- 6. (Previously Presented) The polymeric compound according to Claim 1, wherein the average proportion by weight of structural units of the formula (la) and (lb) and (lc) present is 80% or more.
- 7. (Previously Presented) The polymeric compound according to Claim 1, wherein the ratio of structural units of the formula (la) to structural units of the formula (lb) is 1:2 to 1:500.

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8. (Previously Presented) The polymeric compound according to Claim 1, wherein the ratio of structural units of the formula (Ia) to structural units of the formula (Ic) is 10:1 to 1:200.

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- (Previously Presented) The polymeric compound according to Claim 1, wherein
 D in the structural units of the formulae (Ia) and (Ib) is bonded via the orthoposition to the olefin or the ylidene unit.
- (Previously Presented) The polymeric compound according to Claim 1, wherein
 M in formula (Ia) is ruthenium or osmium.
- 11. (Previously Presented) The polymeric compound according to Claim 1, wherein B in formula (II) is 1,2-ethanediyl or 1,2-ethenediyl.
- 12. (Previously Presented) The polymeric compound according to Claim 1, wherein R⁶ and R⁷ in formula (II) are identical and are primary C₅-C₂₀-alkyl radicals, wherein the carbon atom bonded to the nitrogen atom bears a tertiary alkyl radical, or secondary C₃-C₂₀-alkyl radicals, a-tertiary C₄-C₂₀-alkyl radicals, or mono- or poly-substituted phenyl radicals wherein substitutions are in orthoposition, by C₁-C₄-alkyl radicals.

13.-15. (Cancelled)

16. (Previously Presented) A polymeric transition metal catalyst precursor comprising a compound of formula (IV):

where:

 $R^1,\,R^2,\,R^3,\,R^4,\,A$ and D are each as defined under formula (Ia) in Claim 1.

17.-20. (Cancelled)